

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0059471; AI 43011; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Red Chute Utilities, Inc.
Dogwood Subdivision South Pond
954 Ferndale Boulevard
Haughton, LA 71037
- II. **PREPARED BY:** Eura DeHart
- DATE PREPARED:** April 3, 2009
- III. **PERMIT ACTION:** reissue LPDES permit LA0059471, AI 43011; PER20090001

LPDES application received: January 12, 2009

EPA has not retained enforcement authority.

LPDES permit issued: February 20, 2004
LPDES permit expired: February 28, 2009

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from an existing privately owned treatment works serving Dogwood Subdivision and its extensions.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located south of Dogwood Trail just east of Dogwood Grocery in Haughton, Bossier Parish.
- D. The treatment facility consists of an aerated oxidation pond, settling cell, and rock filter. Disinfection is by chlorination.
- E. Outfall 001

Discharge Location: Latitude 32° 34' 02" North
Longitude 93° 37' 33" West

Description: treated sanitary wastewater

Expected Flow: 1250 Homes x 400 GPD = 0.5 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:
Totalizing Meter

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V. RECEIVING WATERS:

The discharge is into an unnamed tributary, thence into Red Chute Bayou, thence into the Red River in segment 100402 of the Red River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 100402 of the Red River Basin are as indicated in the table below^{1/}:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Full	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 100402 of the Red River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 100402 of the Red River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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For additional information, contact:

Mr. Eura DeHart
 Water Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:**Final Effluent Limits:****OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit. Please note that weekly average has been replaced with daily maximum.

Effluent Characteristic	Monthly Avg (lbs./day)	Monthly Avg	Daily Max	Basis
CBOD ₅ May- October November- April	83 125	20 mg/l 30 mg/l	30 mg/l 45 mg/l	Limits are set in accordance with the Wasteload Allocation for Red Chute Bayou near Bossier City, WLA 91.07
TSS May- October November- April	83 125	20 mg/l 30 mg/l	30 mg/l 45 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	21	5 mg/l	10 mg/l	Limits are set in accordance with the Wasteload Allocation for Red Chute Bayou near Bossier City, WLA 91.07 and the previous permit. The Wasteload Allocation allows less stringent limits than listed; however, due to EPA concerns with toxicity, Ammonia-Nitrogen limits shall not go above 5/10.
Dissolved Oxygen*	N/A	2.0 mg/l	N/A	Limits are set in accordance with the Wasteload Allocation for Red Chute Bayou near Bossier City, WLA 91.07

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Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0059471: Issued: February 20, 2004

Expired: February 28, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅				
May- October	20 mg/l	30 mg/l	2/month	Grab
November- April	30 mg/l	45 mg/l	2/month	Grab
TSS				
May- October	20 mg/l	30 mg/l	2/month	Grab
November- April	30 mg/l	45 mg/l	2/month	Grab
Ammonia-Nitrogen	5 mg/l	10 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
pH	6.0 (min)	9.0 (max)	2/month	Grab

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XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates the most recent inspection was performed for this facility on September 13, 2007. The following was noted:

- The treatment system is a three-cell oxidation pond with rock/reed filter and chlorine gas disinfection.
- The file review showed 10 fecal coliform excursions, 1 pH excursion, and 5 TSS excursions in the past year.
- There is ponding noted in the rock/reed filter.
- Mr. Logan indicated that he may not have enough retention time for the chlorine gas to work properly. He is planning on working with his engineer to remedy the retention issues by adding on a small pond before the discharge to allow for more chlorine retention time. This may remedy the fecal coliform excursions according to Mr. Logan.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent orders have been administered against the facility

C) DMR Review

A review of the discharge monitoring reports for the period beginning February 2007 through January 2009 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TSS (monthly)	001	February 2007	30 mg/l	30.1 mg/l
TSS (weekly)	001	March 2007	45 mg/l	48.2 mg/l
Fecal (monthly)	001	May 2007	200	235
Fecal (monthly)	001	June 2007	200	415.6
Fecal (weekly)	001	June 2007	400	732
Ammonia (loading)	001	July 2007	19 lbs/day	21.3 lbs/day
Ammonia (monthly)	001	July 2007	5 mg/l	5.82 mg/l
Fecal (monthly)	001	July 2007	200	2433
Fecal (weekly)	001	July 2007	400	3600
Ammonia (loading)	001	August 2007	19 lbs/day	20.2 lbs/day
Ammonia (monthly)	001	August 2007	5 mg/l	6.73 mg/l
Fecal (monthly)	001	August 2007	200	>724
Fecal (weekly)	001	August 2007	400	TNTC
Fecal (monthly)	001	September 2007	200	Not Reported
Fecal (weekly)	001	September 2007	400	Not Reported
Fecal (monthly)	001	October 2007	200	448
Fecal (weekly)	001	October 2007	400	464
Fecal (weekly)	001	November 2007	400	TNTC
TSS (monthly)	001	December 2007	30 mg/l	30.4 mg/l
Fecal (monthly)	001	December 2007	200	306
TSS (loading)	001	January 2008	115 lbs/day	124.0 lbs/day
TSS (monthly)	001	January 2008	30 mg/l	36.7 mg/l
TSS (loading)	001	February 2008	115 lbs/day	248.3 lbs/day
TSS (monthly)	001	February 2008	30 mg/l	68.8 mg/l
TSS (weekly)	001	February 2008	45 mg/l	76.5 mg/l

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TSS (monthly)	001	March 2008	30 mg/l	46.2 mg/l
TSS (weekly)	001	March 2008	45 mg/l	63.6 mg/l
TSS (monthly)	001	April 2008	30 mg/l	50.1 mg/l
TSS (weekly)	001	April 2008	45 mg/l	56.8 mg/l
CBOD ₅ (monthly)	001	April 2008	30 mg/l	33.2 mg/l
TSS (loading)	001	May 2008	77 lbs/day	115.4 lbs/day
TSS (monthly)	001	May 2008	20 mg/l	67.5 mg/l
TSS (weekly)	001	May 2008	30 mg/l	69.3 mg/l
CBOD ₅ (monthly)	001	May 2008	20 mg/l	22.6 mg/l
Fecal (monthly)	001	July 2008	200	1352
Fecal (weekly)	001	July 2008	400	2166
CBOD ₅ (monthly)	001	July 2008	20 mg/l	22.8 mg/l
CBOD ₅ (weekly)	001	July 2008	30 mg/l	30.9 mg/l
Fecal (monthly)	001	August 2008	200	212
TSS (monthly)	001	September 2008	20 mg/l	20.4 mg/l
TSS (weekly)	001	September 2008	30 mg/l	31.6 mg/l
Ammonia (monthly)	001	September 2008	5 mg/l	5.21 mg/l
Fecal (weekly)	001	September 2008	400	1731
TSS (monthly)	001	October 2008	20 mg/l	24.8 mg/l
Ammonia (monthly)	001	October 2008	5 mg/l	5.33 mg/l
TSS (monthly)	001	November 2008	30 mg/l	30.2 mg/l
TSS (monthly)	001	December 2008	30 mg/l	58.7 mg/l
TSS (weekly)	001	December 2008	45 mg/l	59.4 mg/l
CBOD ₅ (monthly)	001	December 2008	30 mg/l	39.4 mg/l
CBOD ₅ (weekly)	001	December 2008	45 mg/l	56.6 mg/l
TSS (monthly)	001	January 2009	30 mg/l	46.6 mg/l
TSS (weekly)	001	January 2009	45 mg/l	51.6 mg/l

Note: The file did not contain a DMR for June 2008.

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b) (2) Cc) and CD); 304(b) (2); and 307(a) (2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

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2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are the same as the previous permit.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United

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Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Red Chute Utilities, Inc., Dogwood Subdivision South Pond, January 12, 2009.